

REMARKS/ARGUMENTS

Favourable reconsideration of this application is respectfully requested in view of the above amendments and the following remarks.

In accordance with the Examiner's requirement claims 10, 14 and 68 have been amended so that each word is clear and distinct. Specifically, the Applicants have amended claims 10, 14 and 68 to delete the word "chosen" and replace it with - - selected - - and where present to delete "or a mixture thereof " and replace it with - - and a mixture thereof - -. It is respectfully submitted that the claims as amended now meet the requirements of 35 U.S.C. § 112.

Claim 1 has been amended to clearly identify the active volatilizing temperature. Claims 10, 14 and 68 have been amended as described above. Page 32 of the specification has been amended to delete a query from an earlier draft.

The Examiner has rejected claims 1-68 as being anticipated by Koenig et al. The Examiner is requested to reconsider the rejection in view of the above amendments and the following comments.

It is respectfully submitted that the process disclosed in the Koenig et al. patent does not teach processing steps at a temperature below the active volatilizing temperature of the wood fiber filler as claimed in claim 1. Rather Koenig teaches that "[c]ontrary to the teachings of the art, applicants have unexpectedly found that by including cascaded vacuum devolatilization steps in the process that thermally sensitive PVC biofiber composites can be processed at temperatures greater than 195° C for more than 5 seconds where PVC degradation is known to occur with some HCl generation" (column 3 lines 16 to 21). A similar statement is also found in column 5 lines 40 to 45 wherein it further adds that "[h]igher temperature processes implies a greater thermodynamic

efficiency than prior art processes, which means improved more dense composite material can be produced per unit of power consumed". Clearly this is quite different from the processing steps in the applicants' claim 1 which specifically claims that the temperature is below the volatilizing temperature. Further it is noted that Koenig teaches removing any volatiles after the composite is fully mixed. This is taught at column 3 lines 58 to 66 wherein it states as follows:

After the composite is fully mixed and blended, most of the remaining moisture, volatile decomposition products, and low molecular weight plasticizing biofiber components are removed at a removal station leaving less than 1.5 wt. - % moisture, preferable less than 1 wt. - % moisture preferably less than 8000 ppm moisture in the composite. The heated composite is exposed to atmospheric pressure or reduced pressure at elevated temperature for a sufficient period of time to remove these undesirable volatile products.

It is respectfully submitted that although the processing temperatures are likely below the degradation temperature as suggested by the Examiner it is also very clear that Koenig is teaching that at each stage the temperatures should be as high as possible to achieve the unexpected result. Further, Koenig is teaching a second stage after the mixing wherein the volatiles are removed (see claims 1, 14, 32 and 52). In addition the specific processing temperatures which are taught are significantly higher than those taught in the application herein. Specifically Koenig discusses temperatures from 190°C – 212°C. This is significantly higher than the post drying steps herein wherein the temperatures are to be held to be below the volatilizing temperature which in most instances is below 170°C.

It should also be noted that Koenig does not appear to be directed to a process for producing composite foamed structures. Rather it appears to be directed to producing improved more dense composite materials (column 5 lines 47 to 49). This is quite different from the invention claimed herein which is specifically directed to producing composite foamed structures and providing a process that improves the fine cell

structure of the product.

Accordingly, it is respectfully submitted that Koenig patent does not teach the step of mixing the dried wood fiber filler with plastic to produce a plastic/wood fiber mixture and maintaining the mixing temperature below the active volatilizing temperature, nor does it teach the step of subjecting the plastic/wood fiber/gas mixture to high shear forces in the presence of high pressures and maintaining the processing temperature below the active volatilizing temperature as claimed in claim 1 herein. Rather Koenig teaches away from this since it teaches the unexpected results achieved by using temperatures above the decomposition temperature of the PVC. Therefore it is respectfully submitted that claim 1 and all claims dependent thereon is not anticipated by Koenig.

Applicant submits that the amendments to the application are to more clearly and succinctly recite and claim the present invention. It is respectfully submitted that no new matter has been added by these amendments and all the amendments are supported by the original specification as a whole.

It is respectfully submitted that the application is now in condition for allowance, which is requested.

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Respectfully submitted,

Re: 

Ralph A. Dowell
Attorney for Applicants
Registration No. 26,868
DOWELL & DOWELL, P.C.
1215 Jefferson Davis Highway
Suite 309
Arlington, Virginia
(703) 415-2555

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